









CC nootropic, neuroprotective, anorectic, cardiant, neuroleptic, cytostatic, CC antiparkinsonian, hypotensive, hypertensive, antiulcer, antiallergic, particularly a CC GPCR Gene agonist or antagonist, is useful for treating a disease or CC condition associated with a GPCR in an individual. The nucleic acid cited above, which is 100 or fewer nucleotides in length, is useful for CC assaying a sample for the presence of the GPCR Gene nucleic acid or a CC GPCR gene nucleic acid with at least one nucleotide difference from a first nucleic acid, or for diagnosing a susceptibility to a disease or CC conditions associated with a GPCR. These diseases include infections (e.g. bacterial, fungal, protozoan or viral), rheumatoid arthritis, CC chronic obstructive pulmonary diseases (COPD), asthma, non-insulin dependent diabetes, obesity, osteoporosis, Alzheimer's disease, age-related macular degeneration, myocardial infarction, schizophrenia, osteoarthritis, cancers, Parkinson's diseases, congestive heart failure, CC hypertension, ulcer, allergies, benign prostatic hyperplasia, seizure disorder, anxiety, obsessive compulsive disorder, Cushing's syndrome, hypopituitarism, or pain. This sequence represents one of the 62 GPCR proteins of the invention.

XX  
Sequence 720 AA;  
SQ

Query Match Score 1727.5; DB 7; Length 720;  
Best Local Similarity 97.9%; Pred. No. 2.5e-17;  
Matches 331; Conservative 2; Mismatches 4; Indels 1; Gaps 1;

QY 1 LPHSYCTDVCPPTGCRGF-VQREPICCPSIPCDGHYSRKPSERECQGDBDYWSNAQK 59  
DB 383 LPHSYCTDVCPPTGCRGF-VQREPICCPSIPCDGHYSRKPSERECQGDBDYWSNAQK 442  
QY 60 SECVLKEVTLAYDALGTLVILSVFQAFVVLAVTAAYVHHTPLVNASDWQLGFIQ 119  
DB 443 SECVLKEVTLAYDALGTLVILSVFQAFVVLAVTAAYVHHTPLVNASDWQLGFIQ 502  
QY 120 VSLIIMLSSMLFDKPHNWSCMAGQVTLALGFLSCLSLGKTSLLPLAYRISKSQKLQ 179  
DB 503 VSLIIMLSSMLFDKPHNWSCMAGQVTLALGFLSCLSLGKTSLLPLAYRISKSQKLQ 562  
QY 180 TSMPLPLYRKIVLIVLSSLVLAGIGCTAYLLEPPMVKNNEQNTKILLGNCNESTIPLYSM 239  
DB 563 TSMPLPLYRKIVLIVLSSLVLAGIGCTAYLLEPPMVKNNEQNTKILLGNCNESTIPLYSM 622  
QY 240 FGIDAFALLICFLITFVAFQLDPNYYEGRCITFMLVFFIIMSFVFPYLSTMKGKFRAV 299  
DB 623 FGIDAFALLICFLITFVAFQLDPNYYEGRCITFMLVFFIIMSFVFPYLSTMKGKFRAV 682  
QY 300 EIPAILASSHGLLGCIFAPKCLLRRPERNTSEIVCG 337  
DB 683 EIPAILASSHGLLGCIFAPKCLLRRPERNTSEIVCG 720

RESULT 6  
AD141024 standard; protein: 912 AA.  
ID AD141024;  
AC AD141024;  
XX 22-APR-2004 (first entry)  
DT Mouse pheromone receptor V2B2.  
XX

Receptor: G protein-coupled receptor; reproductive disorder; testicular disorder; vas deferens disorder; spermatogenesis; infertility; XX male; epididymitis; cryptorchidism; sperm transport; spermatogenesis; XX testicular cancer; testicular germ cell tumour; male hormone disorder; premature puberty; Kallman syndrome; Cushing's syndrome; immune disorder; XX leukaemia; arthritis; asthma; AIDS; XX male; XX female; XX graft-versus-host disease; sepsis; T-cell mediated cytotoxicity; XX graft-versus-host disease; autoimmunity disorder; XX systemic lupus erythematosus; drug induced haemolytic anaemia; XX Sjogren's disease; T-cell maturation disorder; XX vascular disorder; XX B-cell maturation disorder; vascular disorder; stroke; ischaemia; myocardial infarction; XX myocardial infarction; atherosclerosis; thrombosis; XX gastrointestinal disorders; pulmonary disorders; ulcers; XX endocrine disorders; XX ovarian, stomach, colon or kidney cancer or its related proliferative condition (many other diseases and disorders are listed in the specification). The antibodies may be used to purify, detect and target the G-protein coupled receptor polypeptides. The XX polynucleotides are also useful in gene therapy. The present sequence

KW pulmonary disorder; brain disorder; endocrine disorder; cancer; gene therapy.  
XX OS Mbs musculus.  
XX PN US2004018976-A1.  
XX PD 29-JAN-2004.  
XX PP 13-MAY-2003; 2003US-00436715.  
XX PR 14-MAY-2002; 2002US-0380336P.  
XX PA (FEDER J N.  
PA (MINTIER G.  
PA (RAMANATHAN C S.  
P1 Feder JN, Mintier G, Ramanathan CS;  
XX DR WPI; 2004-122081/12.  
XX PS Disclosure; SBQ ID NO 84; 290pp; English.  
PT New human G-Protein coupled receptor polypeptide and polynucleotide, useful for diagnosing, preventing, treating or ameliorating a medical condition, e.g. reproductive disorder, immunodeficiency disease or testicular cancer.  
XX  
PT  
PT  
XX  
XX  
XX  
CC The invention relates to an isolated human G protein-coupled receptor polypeptide and its encoding polynucleotide, including the full length protein minus the start methionine (and the region of the polynucleotide encoding this protein region). The proteins are designated HGPRBMY30-1, HGPRBMY30-2, HGPRBMY30-3, HGPRBMY41-1, HGPRBMY41-2, HGPRBMY41-3, HGPRBMY42, HGPRBMY43 and HGPRBMY44. Also included are expression vectors, host cells, antibodies, preventing (treating or ameliorating) a medical condition comprising administering to a mammalian subject the polypeptide or its modulator and diagnosing a pathological condition or a susceptibility to a pathological condition in a subject comprising determining the presence or absence of a mutation in the polynucleotide, or the presence or amount of expression of the polypeptide in a biological sample and diagnosing a pathological condition or a susceptibility to a pathological condition based on the presence or absence of the mutation, or the presence or amount of expression of the polypeptide. The human G-protein coupled receptor polypeptide or polynucleotide can be used for diagnosing a pathological condition or a susceptibility to a pathological condition in a subject, and for preventing, treating or ameliorating a medical condition such as a disorder related to aberrant G-protein coupled receptor activity, a disorder related to aberrant signal transduction, a reproductive disorder, a male reproductive disorder, a testicular disorder, a vas deferens disorder, spermatogenesis, infertility, Klinefelter's syndrome, XX male, epidiidymitis, genital warts, germinal cell aplasia, cryptorchidism, varicocele, immobile cilia syndrome, viral orchitis, sperm transport disorders, testicular cancer, choriocarcinoma, non-seminoma, seminoma, incomplete puberty; Kallman syndrome, Cushing's syndrome, an immune disorder, a proliferative immune disorder, leukaemia, arthritis, asthma, immunodeficiency disease, inflammatory bowel disease, sepsis, acne, neutropenia, neutrophilia, psoriasis, hypersensitivity, such as T-cell mediated cytotoxicity, immune reactions to transplanted organs and tissues, such as host-versus-graft and graft-versus-host diseases, or autoimmunity disorders, such as autoimmune infertility, demyelination, systemic lupus erythematosus, drug induced haemolytic anaemia, Sjogren's disease, scleroderma, T-cell maturation disorders, B-cell maturation disorders, vascular disorders, stroke, ischaemia, myocardial infarction, atherosclerosis, embolisms, thrombosis, XX gastrointestinal disorders, XX irritable bowel syndrome, ulcers, pulmonary disorders, brain disorders, endocrine disorders, or ovarian, stomach, colon or kidney cancer or its related proliferative condition (many other diseases and disorders are listed in the specification). The antibodies may be used to purify, detect and target the G-protein coupled receptor polypeptides. The XX polynucleotides are also useful in gene therapy. The present sequence

CC	represents a species homologue of a novel GPCR of the invention.	PR	20-JUL-1999;	99US-0144766P.
SQ	Sequence 912 AA;	XX	XX	(RGCC ) UNIV CALIFORNIA.
Query Match	Score 1444; DB 8; Length 912;	PA	PA	
Best Local Similarity 74.7%; Pred. No. 3.5e-143;	XX	PI	PI	
Matches 274; Conservative 37; Mismatches 56; Indels 0; Gaps 0;	XX	DR	DR	
WPI; 2001-159517/16.	XX	WPI;	WPI;	
Qy 2 PHSVCTDCCPPGTRGFVOREBPCCDSDTPCADGHVSRSRKEGEREBCQCGEDYNSNAQSKB 61	PT	Novel G protein-coupled odorant family receptors, useful for screening	PT	
Db 546 PDSFCTQCPGPTRKGTCRQGICPCDCPAGTVSESGORECDPCCBDWSNAGRSK 605	PT	compounds capable of modulating reproductive/sexual and non-sexual social	PT	
Qy 62 CVALKEYLAVDEALGFTLVLISVFGAFLVLAATAVYVTHRHHTPLVNASDWQGFLIVQS 121	XX	behaviors.	XX	
Db 606 CVPKLYFLAYGEALGFTLVLISVFGAFLVLAATAVYVTHRHHTPLVNASDWQGFLIVQS 121	PS	Claim 6; Page 40-42; 62pp; English.	XX	
Db 122 LIIMLISSMLFLDKPANWSMAGQVTLAQLGFSLCLSLGKTSSLFLAYRISKSKTQTS 181	CC	The patent discloses methods and compositions relating to odorant	CC	
Qy 122 :   :				
RESLT 7		Query Match	40.1%; Score 796.5;	DB 4; Length 835;
AAY72614	standard; protein; 835 AA.	Best Local Similarity	43.5%;	Pred. No. 1.1e-4;
ID AAY72614		Matches 147;	Conservative 72;	Mismatches 118;
AC AAY72614;		Indels 1;	Gaps 1;	
DT 02-MAY-2001	(First entry)			
XX				
DB 906 VSTVLDD 912		Sequence 835 AA;		
RESLT 7				
AAY72614				
ID AAY72614	standard; protein; 835 AA.			
AC AAY72614;				
XX				
DT 02-MAY-2001	(First entry)			
XX				
DB 906 VSTVLDD 912		Sequence 835 AA;		
RESLT 7				
AAY72614				
ID AAY72614	standard; protein; 835 AA.			
AC AAY72614;				
XX				
DT 02-MAY-2001	(First entry)			
XX				
DB 906 VSTVLDD 912		Sequence 835 AA;		
RESLT 8				
AD140974				
ID AD140974				
AC AD140974;				
XX				
DT 22-APR-2004	(first entry)			
XX				
DB Goldfish putative odorant receptor 2.				
XX				
PN WO200105833-A1.				
XX				
PD 25-JAN-2001.				
XX				
PF 19-JUL-2000; 2000WO-US019687.				
XX				

XK Receptor; G protein-coupled receptor; reproductive disorder; testicular disorder; vas deferens disorder; spermatogenesis; infertility;  
 KW XX male; epididymitis; cryptorchidism; sperm transport disorder;  
 KW testicular cancer; testicular germ cell tumour; male hormone disorder;  
 KW premature puberty; Kallman syndrome; Cushing's syndrome; immune disorder;  
 KW leukaemia; arthritis; asthma; AIDS; rheumatoid arthritis;  
 KW inflammatory bowel disease; sepsis; T-cell mediated cytotoxicity;  
 KW graft-versus-host disease; autoimmunity disorder;  
 KW systemic lupus erythematosus; drug induced haemolytic anaemia;  
 KW Sjogren's disease; T-cell maturation disorder;  
 KW B-cell maturation disorder; vascular disorder; stroke; ischaemia;  
 KW myocardial infarction; atherosclerosis; gastrointestinal disorder; ulcer;  
 KW pulmonary disorder; brain disorder; endocrine disorder; cancer;  
 KW gene therapy.

XK Carassius auratus.

XX US2004018976-A1.

PN XX 29-JAN-2004.

PP XX 13-MAY-2003; 2003US-00436715.

PR XX 14-MAY-2002; 2002US-03803336P.

PA XX (PDB/)

FEDER J N.

PA (MINT/)

MINTIER G.

PA (RAMA/)

RAMANATHAN C S.

XK Feder JN, Mintier G, Ramanathan CS,

XX PI XX

DR DR 2004-122081/12.

XK PS Disclosure: SEQ ID NO 34: 290pp; English.

CC The invention relates to an isolated human G protein-coupled receptor polypeptide and its encoding polynucleotide, including the full length proteins minus the start methionine (and the region of the polynucleotide encoding this protein region). The proteins are designated HGPBMY30-1, HGPBMY30-2, HGPBMY30-3, HGPBMY41-1, HGPBMY41-2, HGPBMY41-3, HGPBMY42, HGPBMY42-1, HGPBMY43 and HGPBMY44. Also included are expression vectors, host cells, antibodies, preventing (treating or ameliorating) a medical condition comprising administering to a mammal the subject polypeptide or its modulator and diagnosing a pathological condition or a susceptibility to a pathological condition in a subject (comprising determining the presence or absence of a mutation in the polynucleotide, or the presence or amount of expression of the polypeptide in a biological sample and diagnosing a pathological condition or a susceptibility to a pathological condition based on the presence or absence of the mutation, or the presence or amount of expression of the polypeptide). The human G-protein coupled receptor polypeptide or polynucleotide can be used for diagnosing a pathological condition or a susceptibility to a pathological condition in a subject, and for preventing, treating or ameliorating a medical condition, such as a disorder related to aberrant G-protein coupled receptor activity, a disorder related to aberrant signal transduction, a reproductive disorder (a male reproductive disorder, a testicular disorder, a vas deferens disorder, spermatogenesis, infertility, Klinefelter's syndrome, XX male, epididymitis, genital warts, germinal cell aplasia, cryptorchidism, varicocoele, immotile cilia syndrome, viral orchitis, sperm transport disorders, testicular cancer, choriocarcinoma, non-seminoma, seminoma, testicular germ cell tumours, male hormone disorders, premature puberty, incomplete puberty, Kallman syndrome, Cushing's syndrome, an immune disorder, a proliferative immune disorder, leukaemia, arthritis, asthma, immunodeficiency diseases such as AIDS, rheumatoid arthritis, granulomatous disease, inflammatory bowel disease, sepsis, acne, neutropenia, neutrophilia, psoriasis, hypersensitivity, such as T-cell

CC mediated cytotoxicity, immune reactions to transplanted organs and tissues, such as host-versus-graft and graft-versus-host diseases, or autoimmunity disorders, such as autoimmune infertility, demyelination, CC systemic lupus erythematosus, drug induced haemolytic anaemia, Sjogren's CC disease, scleroderma, T-cell maturation disorders, B-cell maturation CC disorders, vascular disorders, stroke, ischaemia, myocardial infarction, CC atherosclerosis, embolisms, thrombosis, gastrointestinal disorders, CC irritable bowel syndrome, ulcers, pulmonary disorders, brain disorders, CC endocrine disorders, or ovarian, stomach, colon or kidney cancer or its CC related proliferative condition (many other diseases and disorders are CC listed in the specification). The antibodies may be used to purify, CC detect and target the G-protein coupled receptor polypeptides. The CC polynucleotides are also useful in gene therapy. The present sequence -CC represents a species homologue of a novel GPCR of the invention.  
 XX  
 SQ Sequence 848 AA;

OS	Query Match Score 39.7%;	DB 8;	Length 848;
PN	Best Local Similarity 41.6%;	Pred. No. 9.9e-74;	
XX	Matches 139;	Conservative 78;	Mismatches 116; Indels 1; Gaps 1;
PP	QY 1 LPHSYCTDVCPIGPGTGFVQEPICCFDSIPIADGHVSRKGERECFGEDYWSNAQKS 60		
XX	Db 510 VBVSCBSBCSPGTRGKPIPKCIPYCDPITBGSINTTDSTVCLRCHDFWSNNQND 569		
PR	QY 61 ECVILKEYVLLAYDAGLPTVNLISVSGAPVVLAVTAVVYIHRHTPLYNASDWOLGHLIQV 120		
XX	Db 570 GCYVKETEFLSYSTEINGILLITLISVGAFITLIAVIFERTKNTPIVKANNSELSFLFLF 629		
XX	QY 121 SLIMLISSMOPIDKPHINWSCMAGQVTLALGFSLICUSCLIGTSISPLAYRISKSKTQLT 180		
XX	Db 630 SLMICPCLSLTPIGRPTEWSCLMRLTAFGTTFVLCISCVLGKTVILMFRATLPGSNV 689		
XX	QY 181 S-MHPLYKRTVILVISLISVIAEIGCTAVYLILBPMVYGMESQNTKIKTILGCNEISIBPFYISM 239		
XX	Db 690 KWPGPQRSLVSFTLJQVICVWLTVIYPFPKNLNFKEKITLECNVGSVGEWAV 749		
XX	QY 240 FGIDAPIALICPLTPTVARYOLPDNYYEGKCTFEGMLVFPFIIWMSPVFVYVLSKTKGKPKMAY 299		
XX	Db 750 LGYIGLIALICPLFLAFLARKLDPDNFNBAKFTFSMIFCAVIAFTPAYVSPGKPTVAV 809		
XX	RESULT 9 ADI41018 ID ADI41018 standard; protein: 848 AA.		
XX	XX AC ADI41018;		
XX	DE Goldfish putative odorant receptor 2 #2.		
XX	DT 22-APR-2004 (first entry)		
XX	KW Receptor; GPCR; G protein-coupled receptor; reproductive disorder; testicular disorder; vas deferens disorder; spermatogenesis; infertility; XX male; epididymitis; cryptorchidism; sperm transport disorder; testicular cancer; testicular germ cell tumour; male hormone disorder; premature puberty; Kallman syndrome; Cushing's syndrome; immune disorder; leukae mia; arthritis; asthma; AIDS; rheumatoid arthritis; inflammatory bowel disease; sepsis; T-cell mediated cytotoxicity;		
XX	KW KW systemic lupus erythematosus; drug induced haemolytic anaemia; Sjogren's disease; T-cell maturation disorder; vascular disorder; B-cell maturation disorder; Kallman syndrome; atherosclerosis; gastrointestinal disorder; myocardial infarction; atherosclerosis; gastrointestinal disorder; ulcer; pulmonary disorder; brain disorder; endocrine disorder; cancer; gene therapy.		
XX	OS Carassius auratus.		



Page 9

agonists and antagonists of R5.24, which are useful for modulating reproductive/sexual and non-sexual social behaviours mediated through the olfactory system, reproductive physiologies and olfactory system regulated feeding behaviours, migratory behaviours and events such as conception, implantation, oestrous and menstruation. R5.24 nucleic acid sequence is useful as translatable transcripts, hybridization probes, PCR primers, diagnostic nucleic acids, for detecting the presence of R5.24 genes and gene transcripts, and in detecting or amplifying nucleic acids encoding additional R5.24 homologues and structural analogues. The present sequence is *Careassius auratus* full-length CaSR-like protein. CaSR-like receptor family shows similarity to receptor 5.24 and is specifically expressed in the goldfish olfactory epithelium

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		Sequence	Accession
833	C	CFGFQKRFPSVLSLQLMVICLVMLLISPFPEFLVWVLLIIRKLILUCNLASALGFLGVNL	/52
241	G	GIDAPIALCFLFTIVARQDLPNTYEGKCITFGMIVFIFINMSFVPPVYSTKGKFWMVE	300
753	G	GYTGILSILCPLAFLARKLDPNFNEAKPITFMSMLICFCAWITIPAYVSSFGKFTVAQ	812
301	I	IAAILASSHGLGICPKCLILRPERNTSBIYGER	338
912	T	TPNTIIGGSESTIICPCPDDVAVTIIITPPONTIVVTCVQV	950

- 518

RESULT 11  
AY72615 standard: protein: 856 AA.

AA72615; 02-MAY-2001 (first entry)  
*Carassius auratus* full-length CaSR-like protein #2  
Goldfish; G protein-coupled odorant family receptor; conception; reproductive behaviour; sexual behavior; non-sexual social behaviour; olfactory system; feeding behaviour; migratory behaviour; implantation; menstruation; CaSR-like protein.

K	<i>Carassius auratus</i> .	
S		Location/Qualifier
H	Key	841
T	Misc-difference	/label= Unknown
T		
T	Misc-difference	849
T		/label= Unknown

K WO200105833-A1.  
K  
D 25-JAN-2001.  
K 19-JUL-2000; 2000WO-US20019687

XX 20-JUL-1999; 99US-0144766P.  
 PR  
 XX (REGC ) UNIV CALIFORNIA.  
 PA  
 XX Ngai J, Speca D, Lin DM,  
 PI DR; 2001-159517/16.  
 XX PT Novel G protein-coupled odorant  
 PT compounds capable of modulating  
 PT behaviors.  
 XX Claim 6; Page 42-44; 62pp; En  
 PS

The patent discloses methods and compositions relating to odorant receptors, including a general expression cloning methodology which is useful for identifying novel G protein-coupled receptors and a novel family of odorant receptors and related nucleic acids. Ligands, agonists and antagonists R5.24 which is an odorant receptor and the nucleic acid sequences encoding R5.24 are useful for screening related receptors, agonists and antagonists of R5.24, which are useful for modulating reproductive/sexual and non-sexual social behaviours mediated through the olfactory system, reproductive physiologies and olfactory system regulation, feeding behaviors, migratory behaviours and events such as conception, implantation, oestrous, and menstruation. R5.24 nucleic acid sequence is useful as translatable transcripts, hybridisation probes, PCR primers, diagnostic nucleic acids, for detecting the presence of R5.24 genes and gene transcripts, and in detecting or amplifying nucleic acids encoding additional R5.24 homologues and structural analogues. The present sequence is *Carassius auratus* full-length *Cash-1* protein. CasR-like receptor family shows similarity to receptor 5.24 and is specifically expressed in the goldfish olfactory epithelium

511	LPSVSCBTPCPGTRKAVQKGRRPVCCTDPCGEGEISNGTDSNCFCPLBYWSUBSND	570
61	BCVLRKEYSLAYDEAQLPTLVLSVGAFPVVLAVATVYTHRHTPLVNASDWQGLPGLIQV	120
571	RCVLRKVIBPLSYTEIMGMVLCIESPQGVLTIVSFLPFVHKEPIVRANNSESLILPF	630
121	SLLIMLSSMLPIDKPWNWCMAGQVTTLALGFSICLCLGKTSSFLFLAYRISKSTQLT	180
631	SLTLCFLCSLTIGRPEWSCLMRHTARGETFLCISCLGKTIVVLMAPKLTPESNVVM	690
181	S-MHPFLVRKIIYLISVIABIGCTAYLLEPPMVYKRNMSQNTKILGCNBVISIBLYSM	239
691	KMFGPLQQLSUVSILTIQMIICVWLTTISPPPMNLSYYREKILBNCVGSDFLAFWAV	750
240	FGIDATALLCPLTTFVARQLPDNYYEGKCITPGMLVPTLIMSPVPUVYLSTKGKPKMAY	299
751	LGTYGLLISLCPVLAFLRKPNENZAKPITFNLIFCAWVLLTIPAVYSSPGKETTVAV	810

DE Goldfish putative odorant receptor 1 #2.

KW Receptor; GPCR; G protein-coupled receptor; reproductive disorder; testicular disorder; vas deferens disorder; spermatogenesis; infertility; XX male; epididymitis; cryptorchidism; sperm transport disorder; testicular cancer; testicular germ cell tumour; male hormone disorder; premature puberty; Kallman syndrome; Cushing's syndrome; immune disorder; leukaemia; arthritis; asthma; AIDS; rheumatoid arthritis; inflammatory bowel disease; sepsis; T-cell mediated cytotoxicity; graft-versus-host disease; autoimmunity disorder; systemic lupus erythematosus; drug induced haemolytic anaemia; Sjogren's disease; T-cell maturation disorder; B-cell maturation disorder; vascular disorders; stroke; ischaemia; myocardial infarction; atherosclerosis; embolisms; thrombosis; gastrointestinal disorders; irritable bowel syndrome; ulcers; pulmonary disorders; brain disorders; endocrine disorders; or ovarian, stomach, colon or kidney cancer or its related proliferative condition (many other diseases and disorders are listed in the specification). The antibodies may be used to purify, detect and target the G-protein coupled receptor polypeptides. The polynucleotides are also useful in gene therapy. The present sequence represents a species homologue of a novel GPCR of the invention.

XX OS Carassius auratus.

XX US2004108976-A1.

XX PD 29-JAN-2004.

XX PF 13-MAY-2003; 2003US-00436715.

XX PR 14-MAY-2002; 2002US-0380336P.

XX PA (FEDER J N. / MINTIER G. / RAMANATHAN C S. /)

PA (MINTIER G. / RAMANATHAN C S. /)

XX PI Feder JN, Mintier G, Ramanathan CS;

XX DR; 2004-122081/12.

XX PT New human G-protein coupled receptor polypeptide and polynucleotide, useful for diagnosing, preventing, treating or ameliorating a medical condition, e.g. reproductive disorder, immunodeficiency disease or testicular cancer.

XX PS Disclosure; SEQ ID NO 77; 290pp; English.

CC The invention relates to an isolated human G protein-coupled receptor polypeptide and its encoding polynucleotide, including the full length proteins minus the start methionine (and the region of the polynucleotide encoding this protein region). The proteins are designated HGPRBMY30-1, HGPRBMY30-2, HGPRBMY30-3, HGPRBMY41-1, HGPRBMY41-2, HGPRBMY42, HGPRBMY42-1, HGPRBMY43 and HGPRBMY44. Also included are expression vectors, host cells, antibodies, preventing (treating or ameliorating) a medical condition comprising administering (treating or subjecting the polypeptide or its modulator and diagnosing a pathological condition or a susceptibility to a pathological condition in a subject comprising determining the presence or absence of a mutation in the polynucleotide, or the presence or amount of expression of the polypeptide in a biological sample and diagnosing a pathological condition or a susceptibility to a pathological condition based on the presence or absence of the mutation, or the presence or amount of expression of the polypeptide). The human G-protein coupled receptor polypeptide or polynucleotide can be used for diagnosing a pathological condition or a susceptibility to a pathological condition in a subject, and for preventing, treating or ameliorating a medical condition, such as a disorder related to aberrant G-protein coupled receptor activity, a disorder related to aberrant signal transduction, a reproductive disorder (e.g. a male reproductive disorder, a testicular disorder, a vas deferens disorder, spermatogenesis, infertility, Klinefelter's syndrome, XX male, epididymitis, genital warts, germinal cell aplasia, cryptorchidism, varicocele, immobile cilia syndrome, viral orchitis, sperm transport disorders, testicular cancer, choriocarcinoma, non-seminoma, seminoma, testicular germ cell tumour, male hormone disorders, premature puberty, incomplete puberty, Kallman syndrome, Cushing's syndrome, an immune disorder, leukaemia, arthritis, asthma, granulomatous disease such as AIDS, rheumatoid arthritis, acne,

XX OS Carassius auratus.

CC neutropenia, neutrophilia, psoriasis, hypersensitivities, such as T-cell mediated cytotoxicity, immune reactions to transplanted organs and tissues, such as host-versus-graft and graft-versus-host diseases, or autoimmune disorders, such as autoimmune infertility, denylilation, systemic lupus erythematosus, drug induced haemolytic anaemia, Sjogren's disease, scleroderma, T-cell maturation disorder, B-cell maturation disorder, vascular disorders, stroke, ischaemia, myocardial infarction, atherosclerosis, embolisms, thrombosis, gastrointestinal disorders, CC irritability, endocrine disorders, or ovarian, stomach, colon or kidney cancer or its related proliferative condition (many other diseases and disorders are listed in the specification). The antibodies may be used to purify, detect and target the G-protein coupled receptor polypeptides. The polynucleotides are also useful in gene therapy. The present sequence represents a species homologue of a novel GPCR of the invention.

XX SQ Sequence 844 AA;

Query	Match	Score	Length
Qy	2 PHSVCTDCCPPGTPGRGFVOREPICCFDSIPCADGHYSRKPGGERBCEQGEDYMSNAQKSE	769.5	844;
Db	496 PRSACSESCPPGTRKAQKGPRPCCYDCIPCAEGESNBTRFINCKPCPWEMSNAEKRK	72	Best Local Similarity
Qy	62 CUVKEVBYLAYDAEALGFTLIVLISVEGAFFVVLAVTAVVIRHATPLVNAASDWQGFLILQS	41.8t	Matches 145;
Db	556 CVLKAVEFLSLFETBIMGTVLVPESSLFGVGLTLVAILPFNKDOPMVKANNSELSFLLEFS	72	Conservative
Qy	122 LIMLLSSMLFDKPHAWSCMAGQVTAALGFSCLSLCULGKHSLLFLAYRISKSQTQLTS	1.9e-72;	Indels 129;
Db	616 LTICFCPSLTFGRPTWSMCLHTAGTCITPUCLISCVLGTVIIVMLAKATLGNNIKM	1	Gaps
Qy	182 -NHPLYRKIIIVLIVSLVABIGCTAYLILEPPVYKRMESQNTKILGCGNEISIEFLYSMF	6/75	
Db	676 WFGPAQRSLVSLAFTLIVQVLTISPPPYKNNKYKERKILBLGSITGGSTGFVAVL	240	
Qy	241 GIDAAFLALLCFLTTFYARQIDPNYYEGKCTINQFGLMNFVFLIMMSFVPPVYLSTVKGRMVAWE	735	
Db	736 TYISLIAFLCPFLAFLARTLDKFNRAKFTPSMLFCAVWTFIAPYVSSPKFTVAVE	300	
Qy	301 IPATIASSHGLLGGCIAFPKCJLILRAPERTNSBIVGRVSTIDNCIQ	795	
Db	796 IPATIASSHGLLGGCIAFPKCJLILRAPERTNSBIVGRVSTIDNCIQ	842	

RESULT 13 ADI40973 standard; protein; 844 AA.

XX ID ADI40973;

XX DT 22-APR-2004 (first entry)

XX DB Goldfish putative odorant receptor 1.

XX KW Receptor; G protein-coupled receptor; reproductive disorder; testicular cancer; vas deferens disorder; spermatogenesis; infertility; XX male; epididymitis; cryptorchidism; sperm transport disorder; testicular cancer; testicular germ cell tumour; male hormone disorder; premature puberty; Kallman syndrome; Cushing's syndrome; immune disorder; leukemia; arthritis; asthma; AIDS; rheumatoid arthritis; inflammatory bowel disease; sepsis; T-cell mediated cytotoxicity; graft-versus-host disease; autoimmunity disorder; systemic lupus erythematosus; drug induced haemolytic anaemia; Sjogren's disease; T-cell maturation disorder; B-cell maturation disorder; vascular disorder; stroke; ischaemia; myocardial infarction; atherosclerosis; gastrointestinal disorder; ulcer; pulmonary disorder; brain disorder; endocrine disorder; cancer; gene therapy.

XX OS

XX	US2004018976-A1.		Query Match 38.7%; Score 769.5; DB 8; Length 844;
XX	PD 29-JAN-2004.	Best Local Similarity 41.8%; Pred. No. 7.9-72;	Mismatches 145; Conservative 72; Indels 1; Gaps 1;
XX	PF 13-MAY-2003; 2003US-00436715.	Qy 2 PRHSVCTDVCPPTGTVQRBPICFDSPICADGHVSRKGPERCBOGQDWSNAQKSB 61	
XX	PR 14-MAY-2002; 2002US-03880336P.	Db 496 PRSACSSSCCPPTRKAQQKGGRFCYDCIPCAEGEISNETRFINCKCPWBTSNAERNK 555	
XX	(PFDB/1) FEDER J N.	Qy 62 CYLVKEVEYLAYDEALGFTLVLISVGFATVFLVATVAYVHRRHTPLVNASDWQGFLIQVS 121	
PA	(MINT/1) MINTIER G.	Db 556 CULKAVEEFLSFTEMGVTVLVPFSLFGVGLTLLVALVPLYNKDDTPMKANNSELSFLLFs 615	
PA	(RAMA/1) RAMANATHAN C S.	Qy 122 LITIMLISSMLFIDKPHNWSMAGQVTALGFSLCLSLCLGKTISSLAYRISKSKTOLTS 181	
PI	Peder JN, Mintier G, Ramanathan CS;	Db 616 LRLCFLCSLTFLGRTPTWMSCLHCTAGTIPVLCISCVLGKTVVMAFKATLPGNNIKM 675	
XX	DR 2004-122081/12.	Qy 182 -MHPFLYRKIVLIVLISVLABIGICITAYLILEPPMVVKMNEQSONTKILLGNCNEISIPELYSMF 240	
XX	PT New human G-protein coupled receptor polypeptide and polynucleotide,	Db 676 WRCPAQQLRSVLAFTLJLQVILCIVLWLTSPPPYKMKYKKEKILBCSLGTTIGFWAVL 735	
PR	useful for diagnosing, preventing, treating or ameliorating a medical	encoding this protein region). The proteins are designated HGPRBMY30-1,	
PR	condition, e.g. reproductive disorder, immunodeficiency disease or	HGPRBMY30-2, HGPRBMY30-3, HGPRBMY41-1, HGPRBMY41-2, HGPRBMY41-3,	
PT	testicular cancer.	HGPRBMY42, HGPRBMY42-1, HGPRBMY43 and HGPRBMY44. Also included are	
XX	Disclosure; SEQ ID NO 33; 290pp; English.	expression vectors, host cells, antibodies, preventing (treating or	
XX	subject the polypeptide or its modulator and diagnosing a pathological	ameliorating) a medical condition comprising administering to a mammalian	
CC	condition or a susceptibility to a pathological condition in a subject	subject the polypeptide or its modulator and diagnosing a pathological	
CC	(comprising determining the presence or absence of a mutation in the	condition or a susceptibility to a pathological condition in a subject	
CC	polypeptide, or the presence or amount of expression of the	comprising determining the presence or absence of a mutation in the	
CC	polypeptide in a biological sample and diagnosing a pathological	polypeptide, or the presence or amount of expression of the	
CC	condition or a susceptibility to pathological condition based on the	polypeptide in a biological sample and diagnosing a pathological	
CC	presence or absence of the mutation, or the presence or amount of	condition or a susceptibility to a pathological condition in a subject	
CC	expression of the polypeptide). The human G-protein coupled receptor	comprising determining the presence or absence of a mutation in the	
CC	polypeptide or polynucleotide can be used for diagnosing a pathological	polypeptide, or the presence or amount of expression of the	
CC	condition or a susceptibility to a pathological condition in a subject,	polypeptide in a biological sample and diagnosing a pathological	
CC	and for preventing, treating or ameliorating a medical condition, such as	condition or a susceptibility to pathological condition based on the	
CC	a disorder related to aberrant G-protein coupled receptor activity, a	presence or absence of the mutation, or the presence or amount of	
CC	disorder related to aberrant signal transduction, a reproductive disorder	expression of the polypeptide). The human G-protein coupled receptor	
CC	; a male reproductive disorder, a testicular disorder, a vas deferens	polypeptide or polynucleotide can be used for diagnosing a pathological	
CC	disorder, spermatogenesis, infertility, Klinefelter's syndrome, XX male,	condition or a susceptibility to a pathological condition in a subject,	
CC	epididymitis, genital warts, Germline cell aplasia, cryptorchidism,	and for preventing, treating or ameliorating a medical condition, such as	
CC	varicocoele, immotile cilia syndrome, viral orchitis, sperm transport	a disorder related to aberrant G-protein coupled receptor activity, a	
CC	disorders, testicular cancer, choriocarcinoma, non-seminoma, seminoma,	disorder related to aberrant signal transduction, a reproductive disorder	
CC	testicular germ cell tumour, male hormone disorders, premature puberty,	; a male reproductive disorder, a testicular disorder, a vas deferens	
CC	incomplete puberty, Kallman syndrome, Cushing's syndrome, an immune	disorder, spermatogenesis, infertility, Klinefelter's syndrome, XX male,	
CC	disorder, a proliferative immune disorder, leukaemia, arthritis, asthma,	epididymitis, genital warts, Germline cell aplasia, cryptorchidism,	
CC	immuno deficiency diseases such as AIDS, rheumatoid arthritis,	varicocoele, immotile cilia syndrome, viral orchitis, sperm transport	
CC	granulomatous disease, inflammatory bowel disease, sepsis, acne,	disorders, testicular cancer, choriocarcinoma, non-seminoma, seminoma,	
CC	neutropenia, neutrophilia, psoriasis, hypersensitivity, such as T-cell	testicular germ cell tumour, male hormone disorders, premature puberty,	
CC	mediated cytotoxicity, immune reactions to transplanted organs and	incomplete puberty, Kallman syndrome, Cushing's syndrome, an immune	
CC	tissues, such as host-versus-graft and graft-versus-host diseases, or	disorder, a proliferative immune disorder, leukaemia, arthritis, asthma,	
CC	autoimmunity disorders, such as autoimmune infertility, demyelination,	immuno deficiency diseases such as AIDS, rheumatoid arthritis,	
CC	systemic lupus erythematosus, drug induced haemolytic anaemia, Sjogren's	granulomatous disease, inflammatory bowel disease, sepsis, acne,	
CC	disorder, scleroderma, T-cell maturation disorders, B-cell maturation	neutropenia, neutrophilia, psoriasis, hypersensitivity, such as T-cell	
CC	disorders, valvular disorders, stroke, ischaemia, myocardial infarction,	mediated cytotoxicity, immune reactions to transplanted organs and	
CC	atherosclerosis, embolisms, thrombosis, gastrointestinal disorders,	tissues, such as host-versus-graft and graft-versus-host diseases, or	
CC	irritable bowel syndrome, ulcers, pulmonary disorders, brain disorders,	autoimmunity disorders, such as autoimmune infertility, demyelination,	
CC	endocrine disorders, such as autoimmune infertility, demyelination,	systemic lupus erythematosus, drug induced haemolytic anaemia, Sjogren's	
CC	related proliferative conditions (many other diseases and disorders are	disorder, scleroderma, T-cell maturation disorders, B-cell maturation	
CC	listed in the specification). The antibodies may be used to purify,	disorders, valvular disorders, stroke, ischaemia, myocardial infarction,	
CC	detect and target the G-protein coupled receptor polypeptides. The	atherosclerosis, embolisms, thrombosis, gastrointestinal disorders,	
CC	polypeptides are also useful in gene therapy. The present sequence	irritable bowel syndrome, ulcers, pulmonary disorders, brain disorders,	
CC	represents a species homologue of a novel GPCR of the invention.	endocrine disorders, such as autoimmune infertility, demyelination,	
XX	Sequence 844 AA;	CC	The patent discloses methods and compositions relating to odorant
SQ		CC	receptors, including a general expression Cloning method which is
		CC	useful for identifying novel G protein-coupled receptors and a novel
		CC	family of odorant receptors and related nucleic acids, ligands, agonists
		CC	and antagonists. R5.24 which is an odorant receptor and the nucleic acid

CC sequences encoding R5.24 are useful for screening related receptors,  
 CC agonists and antagonists of R5.24, which are useful for modulating  
 CC reproductive/sexual and non-sexual social behaviours mediated through the  
 CC olfactory system, reproductive physiologies and olfactory system  
 CC regulating feeding behaviours, migratory behaviours and events such as  
 CC conception, implantation, oestrous, and menstruation. R5.24 nucleic acid  
 CC sequence is useful as translatable transcripts, hybridisation probes, PCR  
 CC primers, diagnostic nucleic acids, for detecting the presence of R5.24  
 CC genes and gene transcripts, and in detecting or amplifying nucleic acids  
 CC encoding additional R5.24 homologues and structural analogues. The  
 CC present sequence is Carassius auratus full-length CaSR-like protein. CaSR  
 CC -like receptor family shows similarity to receptor 5.24 and are  
 CC specifically expressed in the goldfish olfactory epithelium  
 XX Sequence 854 AA;

Query Match 38.3%; Score 760.5; DB 4; Length 854;

Best Local Similarity 41.5%; Pred. No. 7.2e-71; Matches 142; Conservative 68; Mismatches 131; Indels 1; Gaps 1;

Db 511 LPGSVCSSCSPTRKTVQGRPVCPPGCFDSTICADCAGHIVSRKEGRBRCQQGBDYNSNAQK 60

Db 61 ECVLKEVYAYDEAUGFLVILSVFGAVVYIHRFLPLUNASDWQLGFLSQV 120

Db 571 RCTLVKDVTEFLSTTIVMNLVCLPSFGVGLVAMTMSFLFVLLKETPTNSELIF 630

Qy 1121 SLTMLLISMLFDIKPHNWSMAGQVTLAQLGSFLCSLGLKTSLSFLAYRISKSKTOL 180

Db 631 SLSLCFLSCLTPIGRPELSCMLRHTAFITFLVCLSCVGLKTUVLMAFRATLPGSDVM 690

Qy 181 S-NHPLVKKIIIVLISLAEGIICATYLILPPLPMYKANMSQNTKILGCGNEISIEFLYSM 239

Db 631 KNGPQAORLVSLSLTQVIVVWLTISPPFPYMNLSYYREKTMVLLCNVGSALGFWTV 750

Qy 240 FGIDAFALLCPLTTFWAQLDNTYEGKCTIFMLVFPTINNSFVPYVPLSTPKGKFWMV 299

Db 751 LCYTGJLSLSLCFLVAPLKLPDNFNEAKPITFSMLIFCAVWLTIPAVYSSGKFVVA 810

Qy 300 EFAILASSHGLLGCITFAPKCLLTLRPERNTSEIVCGRVST 341

Db 811 EFAILVSSFCFLFCITPAPCYVILLKPEKNTKKQMMGGSST 852

RESULT 15 ADI40971 DE Fugu pheromone receptor 4.

ID ADI40971 standard; protein; 880 AA.

XX AC ADI40971;

XX DT 22-APR-2004 (first entry)

XX DE Fugu pheromone receptor 4.

XX Receptor; GPCR; G protein-coupled receptor; reproductive disorder;  
 XX testicular disorder; vas deferens disorder; spermatogenesis; infertility;  
 XX male; epididymitis; cryptorchidism; sperm transport disorder;  
 XX premature puberty; testicular germ cell tumour; male hormone disorder;  
 XX leukaemia; arthritis; asthma; Cushing's syndrome; immune disorder;  
 XX inflammatory bowel disease; sepsis; T-cell mediated cytotoxicity;  
 XX graft-versus-host disease; autoimmunity disorder;  
 XX systemic lupus erythematosus; drug induced haemolytic anaemia;  
 XX Sjogren's disease; T-cell maturation disorder; vascular disorder;  
 XX myocardial infarction; atherosclerosis; stroke; ischaemia; myocardial infarction,  
 XX atherosclerosis; embolisms; thrombosis; gastrointestinal disorders,  
 XX irritable bowel syndrome; ulcers; pulmonary disorders; brain disorders,  
 XX endocrine disorders; or ovarian, stomach, colon or kidney cancer or its  
 XX related proliferative disease, such as AIDS, rheumatoid arthritis, asthma,  
 XX granulomatous disease, inflammatory bowel disease, sepsis, acne,  
 XX neutropenia, neutrophilia, psoriasis, hypersensitivity, such as T-cell  
 XX mediated cytotoxicity, immune reactions to transplanted organs and  
 XX tissues, such as host-versus-graft and graft-versus-host diseases, or  
 XX autoimmunity disorders, such as autoimmune infertility, demyelination,  
 XX systemic lupus erythematosus, drug induced haemolytic anaemia, Sjogren's  
 XX disease, scleroderma, T-cell maturation disorders, B-cell maturation  
 XX disorders, vascular disorders, stroke, ischaemia, myocardial infarction,  
 XX atherosclerosis, embolisms, thrombosis; gastrointestinal disorders,  
 XX irritable bowel syndrome; ulcers; pulmonary disorders; brain disorders,  
 XX endocrine disorders; or ovarian, stomach, colon or kidney cancer or its  
 XX related proliferative condition (many other diseases and disorders are  
 XX listed in the specification). The antibodies may be used to purify,  
 XX detect and target the G-protein coupled receptor polypeptides. The  
 XX polypeptides are also useful in gene therapy. The present sequence  
 XX represents a species homologue of a novel GPCR of the invention.

OS Takifugu rubripes  
 XX PN US2004018976-A1.

SQ Sequence 880 AA;

Query Match 37.9%; Score 753.5; DB 8; Length 880;  
 Best Local Similarity 41.9%; Pred. No. 4.1e-70;

XX PD 29-JAN-2004.  
 XX PF 13-MAY-2003; 2003US-00436715.  
 XX PR 14-MAY-2002; 2002US-0380336P.  
 XX PA (FEDE/ ) FEDER J N.  
 XX PA (MINT/ ) MINTLER G.  
 XX PA (RAMA/ ) RAMANATHAN C S.  
 PI Feder JN, Mintier G, Ramanathan CS;  
 XX DR WPI; 2004-122081/12.  
 XX PT New human G-protein coupled receptor polypeptide and polynucleotide,  
 PT useful for diagnosing, preventing, treating or ameliorating a medical  
 PT condition, e.g. reproductive disorder, immunodeficiency disease or  
 PT testicular cancer.  
 XX Disclosure; SEQ ID NO 31; 290pp; English.  
 XX PS  
 CC The invention relates to an isolated human G protein-coupled receptor  
 CC polypeptide and its encoding polynucleotide, including the full length  
 CC proteins minus the start methionine (and the region of the polynucleotide  
 CC encoding this protein region). The proteins are designated HGPRBMY30-1,  
 CC HGPRBMY30-2, HGPRBMY30-3, HGPRBMY41-1, HGPRBMY41-2, HGPRBMY41-3,  
 CC HGPRBMY42, HGPRBMY42-1, HGPRBMY43 and HGPRBMY44. Also included are  
 CC expression vectors, host cells, antibodies, preventing, administering or  
 CC subjecting the polypeptide or its modulator and diagnosing a pathological  
 CC condition or a susceptibility to a pathological condition in a subject  
 CC (comprising determining the presence or absence of a mutation in the  
 CC polynucleotide, or the presence or amount of expression of the  
 CC polypeptide in a biological sample and diagnosing pathological  
 CC condition or a susceptibility to a pathological condition based on the  
 CC presence or absence of the mutation, or the presence or amount of  
 CC expression of the polypeptide). The human G-protein coupled receptor  
 CC polypeptide or polynucleotide can be used for diagnosing a pathological  
 CC condition or a susceptibility to a pathological condition in a subject,  
 CC and for preventing, treating or ameliorating a medical condition, such as  
 CC a disorder related to aberrant G-protein coupled receptor activity, a  
 CC disorder related to aberrant signal transduction, a reproductive disorder  
 CC ; a male reproductive disorder, a testicular disorder, a testicular disorder, a vas deferens  
 CC disorder, spermatogenesis, infertility, Klinefelter's syndrome, XX male,  
 CC epidydymitis, genital warts, germinal cell aplasia, cryptorchidism,  
 CC varicocele, immotile cilia syndrome, viral orchitis, sperm transport  
 CC disorders, testicular cancer, choriocarcinoma, non-seminoma, seminoma,  
 CC testicular germ cell tumours, male hormone disorders, premature puberty,  
 CC incompatible puberty, Kallman syndrome, Cushing's syndrome, an immune  
 CC disorder, a proliferative immune disorder, leukaemia, arthritis, asthma,  
 CC immunodeficiency diseases, such as AIDS, rheumatoid arthritis,  
 CC granulomatous disease, inflammatory bowel disease, sepsis, acne,  
 CC neutropenia, neutrophilia, psoriasis, hypersensitivity, such as T-cell  
 CC mediated cytotoxicity, immune reactions to transplanted organs and  
 CC tissues, such as host-versus-graft and graft-versus-host diseases, or  
 CC autoimmunity disorders, such as autoimmune infertility, demyelination,  
 CC systemic lupus erythematosus, drug induced haemolytic anaemia, Sjogren's  
 CC disease, scleroderma, T-cell maturation disorders, B-cell maturation  
 CC disorders, vascular disorders, stroke, ischaemia, myocardial infarction,  
 CC atherosclerosis, embolisms, thrombosis; gastrointestinal disorders,  
 CC irritable bowel syndrome; ulcers; pulmonary disorders; brain disorders,  
 CC endocrine disorders; or ovarian, stomach, colon or kidney cancer or its  
 CC related proliferative condition (many other diseases and disorders are  
 CC listed in the specification). The antibodies may be used to purify,  
 CC detect and target the G-protein coupled receptor polypeptides. The  
 CC polypeptides are also useful in gene therapy. The present sequence  
 CC represents a species homologue of a novel GPCR of the invention.

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Matches 139;  Conservative 69;  Mismatches 123;  Indels 1;  Gaps 1;
Qy      1 LPHSYCTDVCPGGRGPVQREPCCFDOSTPCADGHVRKPGRECECGEDWNSACKS 60
Db      538 VPLSVCSICPPGTRKAIRPNYPICCHCVCTAGBISNOTDAIECARCLPETSNAERT 597
Qy      61 BCVLKEVEYTLAYDEALGFTLVLISVFGAFVLLAVTAVVTHRHRTPLVNASDNGLGFLIQV 120
Db      598 ACVPKQVEPUSPFGDTIGALLVWSLGSPLTCAVALVPPYHRTSPIVANNSDLSFLLF 657
Qy      121 SIIIMLSSMLFIDKPHNNSCMAGQVTALGFSCLSLCILGKTSSLPLA YRISKSRTQLT 180
Db      658 SLTLCFLCSLTPSPQSCLMRHTARGETFLCISCLGKTIVLMAFRATLPGSDVM 717
Qy      181 S-MAPLYRKVTKLIVLISVLA BIGICITAYLLEBPPAVYKNBESQNTKILLGCNEASIEFLYMSM 239
Db      718 KWFPGPKQRAITESTLIVQVVICTVWLVVAPPTPROYMPRESAIIILCDEGSTIAFSLV 777
Qy      240 FGIDAFLAICFLTFVARQLPDNYYERKCITFGMLVFPFLIMMSFVPPYLSTKGKFKAIV 299
Db      778 LGYIGVLAACMFLLAFLARKLPDNFNEARLIAFSMLICAVWWAFVPAVSSGKSYLT 837
Qy      300 EIPAILASSHGLLGCIRAPKCLLIRPERNT 331
Db      838 EIPAILASSYGLLGCIRAPKCYIILMKSEKNT 869

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Search completed: February 16, 2005, 16:32:01  
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